



Met Ile Leu Trp Leu His Ser Leu Glu Thr Ala Arg Asp His Val Leu
1 5 10 15

Pro Ile Asp Tyr Tyr Phe Pro Pro Gln Lys Thr Cys Leu Ile Cys Gly
 20 25 30
 Asp Glu Ala Ser Gly Cys His Tyr Gly Ala Leu Thr Cys Gly Ser Cys
 35 40 45
 Lys Val Phe Phe Lys Arg Ala Ala Glu Gly Lys Gln Lys Tyr Leu Cys
 50 55 60
 Ala Ser Arg Asn Asp Cys Thr Ile Asp Lys Phe Arg Arg Lys Asn Cys
 65 70 75 80
 Pro Ser Cys Arg Leu Arg Lys Cys Tyr Glu Ala Gly Met Thr Leu Gly
 85 90 95
 Ala Arg Lys Leu Lys Lys Leu Gly Asn Leu Lys Leu Gln Glu Glu Gly
 100 105 110
 Glu Ala Ser Ser Thr Thr Ser Pro Thr Glu Glu Thr Thr Gln Lys Leu
 115 120 125
 Thr Val Ser His Ile Glu Gly Tyr Glu Cys Gln Pro Ile Phe Leu Asn
 130 135 140
 Val Leu Glu Ala Ile Glu Pro Gly Val Val Cys Ala Gly His Asp Asn
 145 150 155 160
 Asn Gln Pro Asp Ser Phe Ala Ala Leu Leu Ser Ser Leu Asn Glu Leu
 165 170 175
 Gly Glu Arg Gln Leu Val His Val Val Lys Trp Ala Lys Ala Leu Pro
 180 185 190
 Gly Phe Arg Asn Leu His Val Asp Asp Gln Met Ala Val Ile Gln Tyr
 195 200 205
 Ser Trp Met Gly Leu Met Val Phe Ala Met Gly Trp Arg Ser Phe Thr
 210 215 220
 Asn Val Asn Ser Arg Met Leu Tyr Phe Ala Pro Asp Leu Val Phe Asn
 225 230 235 240
 Glu Tyr Arg Met His Lys Ser Arg Met Tyr Ser Gln Cys Val Arg Met
 245 250 255
 Arg His Leu Ser Gln Glu Phe Gly Trp Leu Gln Ile Thr Pro Gln Glu
 260 265 270
 Phe Leu Cys Met Lys Ala Leu Leu Leu Phe Ser Ile Ile Pro Val Asp
 275 280 285
 Gly Leu Lys Asn Gln Lys Phe Phe Asp Glu Leu Arg Met Asn Tyr Ile
 290 295 300
 Lys Glu Leu Asp Arg Ile Ile Ala Cys Lys Arg Lys Asn Pro Thr Ser
 305 310 315 320

Cys Ser Arg Arg Phe Tyr Gln Leu Thr Lys Leu Leu Asp Ser Val Gln
 325 330 335

Pro Ile Ala Arg Glu Leu His Gln Phe Thr Phe Asp Leu Leu Ile Lys
 340 345 350

Ser His Met Val Ser Val Asp Phe Pro Glu Met Met Ala Glu Ile Ile
 355 360 365

Ser Val Gln Val Pro Lys Ile Leu Ser Gly Lys Val Lys Pro Ile Tyr
 370 375 380

Phe His Thr Gln
 385

<210> 3

<211> 1171

<212> DNA

<213> Homo sapiens

<400> 3

```

gctgcgagca gagaggggtt cctcggaggt catctgttcc atcttcttgc ctatgcaaatt 60
gcctgcctga agctgctgga ggctggcttt gtaccggact ttgtacaggg aaccagggaa 120
acgaatgcag agtgctcctg acattgcctg tcactttttc ccatgatact ctggcttcac 180
agtttggaga ctgccaggga ccatgttttg cccattgact attactttcc accccagaag 240
acctgcctga tctgtggaga tgaagcttct gggtgtcact atggagctct cacatgtgga 300
agctgcaagg tcttcttcaa aagagccgct gaagggaaac agaagtacct gtgcgccagc 360
agaaatgatt gcactattga taaattccga agaaaaaatt gtccatcttg tcgtcttcgg 420
aaatgttatg aagcagggat gactctggga gcccggaagc tgaagaaact tggtaatctg 480
aaactacagg aggaaggaga ggcttccagc accaccagcc ccatgagga gacaaccag 540
aagctgacag tgtcacacat tgaaggctat gaatgtcagc ccatctttct gaatgtcctg 600
gaagccattg agccagggtg agtgtgtgct ggacacgaca acaaccagcc cgactccttt 660
gcagccttgc tctctagcct caatgaactg ggagagagac agcttgtaca cgtgggtcaag 720
tggggccaagg ccttgcttgg cttccgcaac ttacacgtgg acgaccagat ggctgtcatt 780
cagtactcct ggatggggct catggtgttt gccatgggct ggcgatcctt caccaatgtc 840
aactccagga tgctctactt cgcccctgac ctggttttca atgagtaccg catgcacaag 900
tcccggatgt acagccagtg tgtccgaatg aggcacctct ctcaagagtt tggatgggtc 960
caaatacccc cccaggaatt cctgtgcatg aaagcactgc tactcttcag cattaattgc 1020
gagagagctg catcagttca cttttgacct gctaataaag tcacacatgg tgagcgtgga 1080
ctttccggaa atgatggcag agatcatctc tgtgcaagtg cccaagatcc tttctgggaa 1140
agtcaagccc atctattttcc acaccagtg a

```

<210> 4

<211> 294

<212> PRT

<213> Homo sapiens

<400> 4

Met Ile Leu Trp Leu His Ser Leu Glu Thr Ala Arg Asp His Val Leu
 1 5 10 15

Pro Ile Asp Tyr Tyr Phe Pro Pro Gln Lys Thr Cys Leu Ile Cys Gly
 20 25 30

Asp Glu Ala Ser Gly Cys His Tyr Gly Ala Leu Thr Cys Gly Ser Cys
 35 40 45

Lys Val Phe Phe Lys Arg Ala Ala Glu Gly Lys Gln Lys Tyr Leu Cys
 50 55 60
 Ala Ser Arg Asn Asp Cys Thr Ile Asp Lys Phe Arg Arg Lys Asn Cys
 65 70 75 80
 Pro Ser Cys Arg Leu Arg Lys Cys Tyr Glu Ala Gly Met Thr Leu Gly
 85 90 95
 Ala Arg Lys Leu Lys Lys Leu Gly Asn Leu Lys Leu Gln Glu Glu Gly
 100 105 110
 Glu Ala Ser Ser Thr Thr Ser Pro Thr Glu Glu Thr Thr Gln Lys Leu
 115 120 125
 Thr Val Ser His Ile Glu Gly Tyr Glu Cys Gln Pro Ile Phe Leu Asn
 130 135 140
 Val Leu Glu Ala Ile Glu Pro Gly Val Val Cys Ala Gly His Asp Asn
 145 150 155 160
 Asn Gln Pro Asp Ser Phe Ala Ala Leu Leu Ser Ser Leu Asn Glu Leu
 165 170 175
 Gly Glu Arg Gln Leu Val His Val Val Lys Trp Ala Lys Ala Leu Pro
 180 185 190
 Gly Phe Arg Asn Leu His Val Asp Asp Gln Met Ala Val Ile Gln Tyr
 195 200 205
 Ser Trp Met Gly Leu Met Val Phe Ala Met Gly Trp Arg Ser Phe Thr
 210 215 220
 Asn Val Asn Ser Arg Met Leu Tyr Phe Ala Pro Asp Leu Val Phe Asn
 225 230 235 240
 Glu Tyr Arg Met His Lys Ser Arg Met Tyr Ser Gln Cys Val Arg Met
 245 250 255
 Arg His Leu Ser Gln Glu Phe Gly Trp Leu Gln Ile Thr Pro Gln Glu
 260 265 270
 Phe Leu Cys Met Lys Ala Leu Leu Leu Phe Ser Ile Asn Cys Glu Arg
 275 280 285
 Ala Ala Ser Val His Phe
 290

<210> 5

<211> 10

<212> PRT

<213> Homo sapiens

<400> 5

Asn Cys Glu Arg Ala Ala Ser Val His Phe
 1 5 10

<210> 6
<211> 7
<212> PRT
<213> Homo sapiens

<400> 6
Met Ile Leu Trp Leu His Ser
1 5

<210> 7
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 7
cagattacca agcttcagct tccg 24

<210> 8
<211> 47
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 8
acaggggaacc aggggaaacga atgcagagtg ctcttgacat tgcctgt 47

<210> 9
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 9
gacaggggaac caggggaaacg aatg 24

<210> 10
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 10
tcactgggtg tgggaaataga tgggcttga 29

<210> 11
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 11
tgacggggtc acccacactg tgcccatcta 30

<210> 12
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 12
ctagaagcat ttgcggtgga cgatggaggg 30

<210> 13
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 13
gatgagaagg acccacggcg tctgttcg 28

<210> 14
<211> 28
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 14
gagacaatcc agcagcccag gagggaca 28

<210> 15
<211> 42
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Primer

<400> 15

ccctggatgg atagctactc cggaccttac ggggacatgc gt

42